



Food and Agriculture
Organization of the
United Nations

FAO indicator framework for assessment of Agricultural Innovation Systems

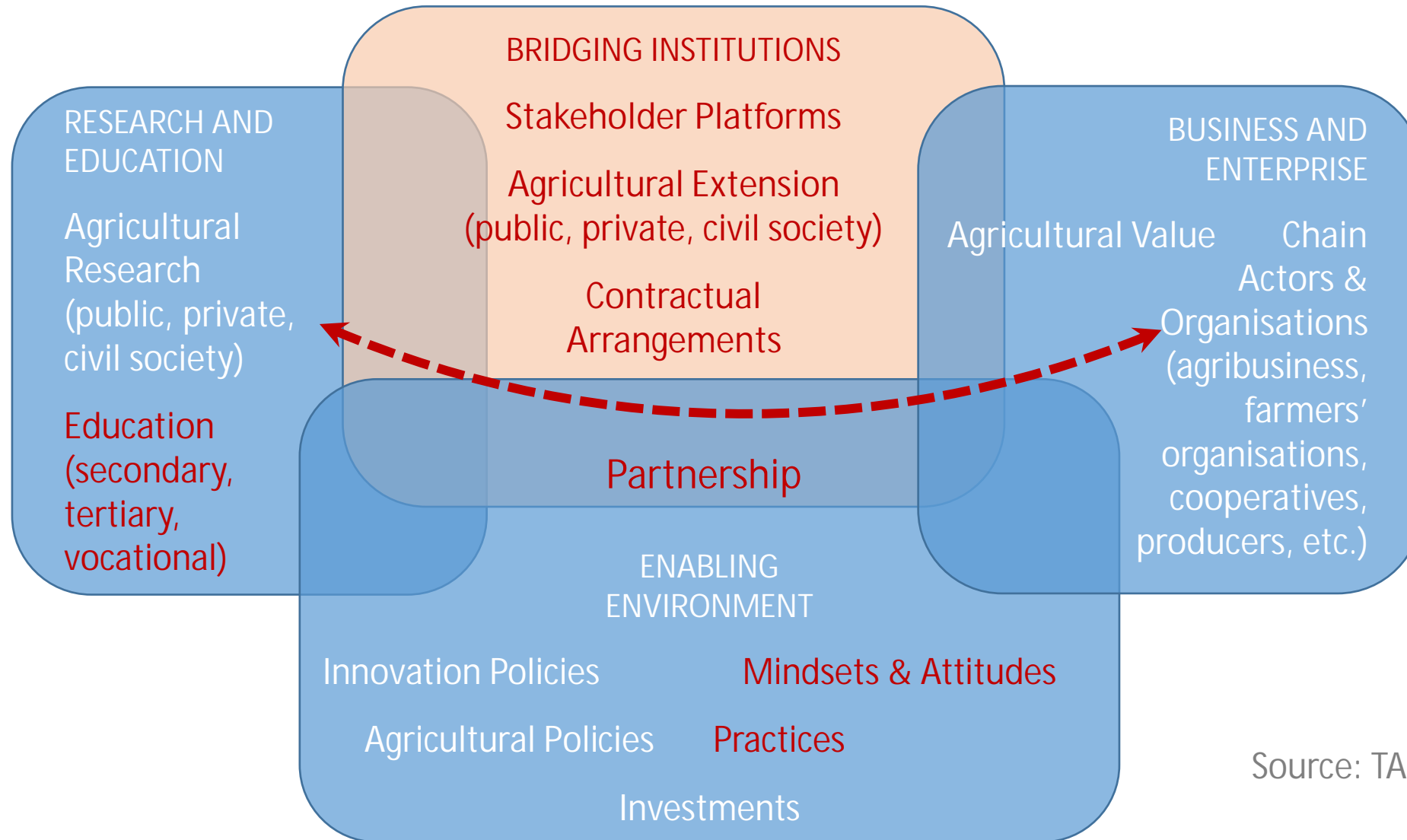
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Major gaps from an AIS (AKIS) perspective

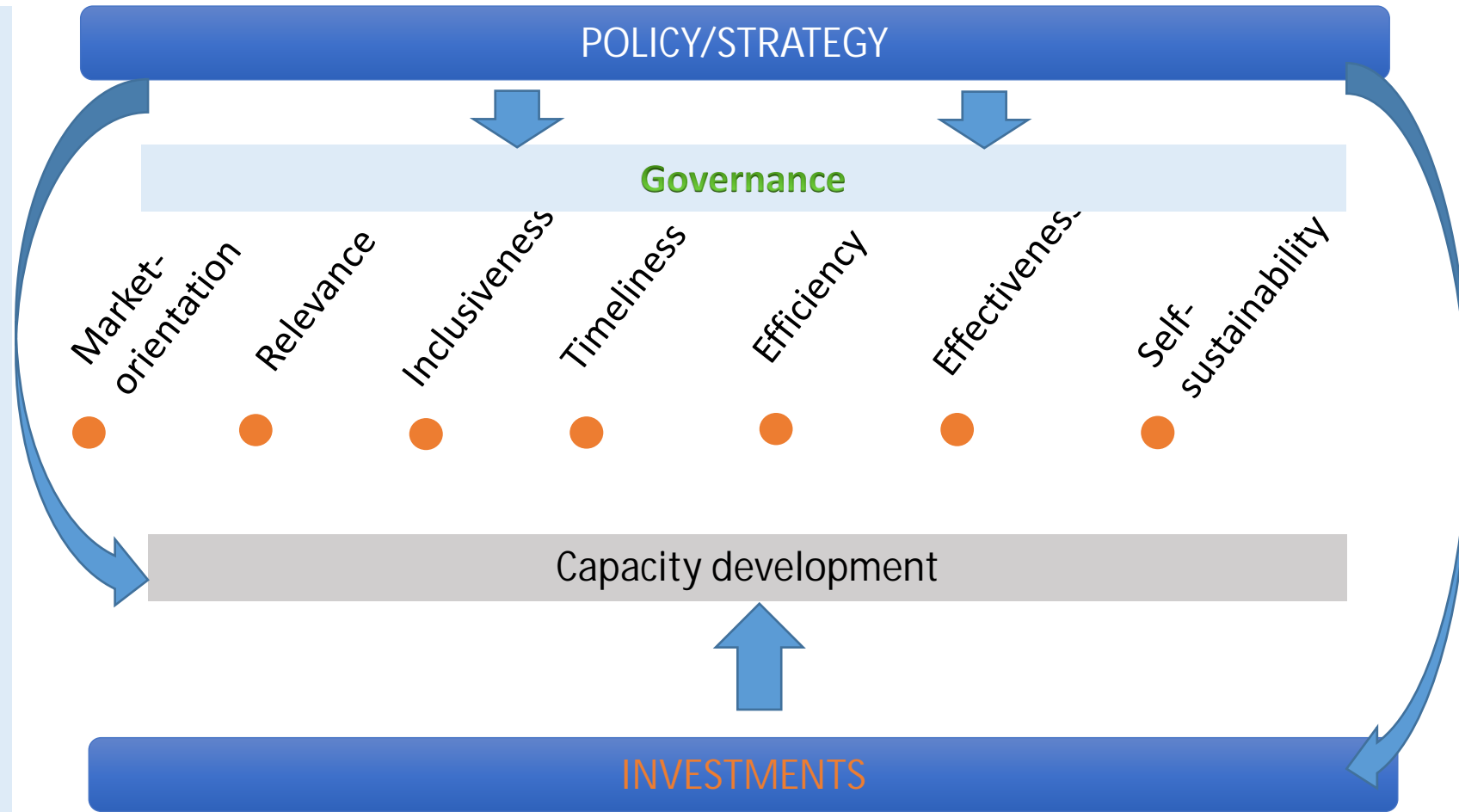


Source: TAP Framework



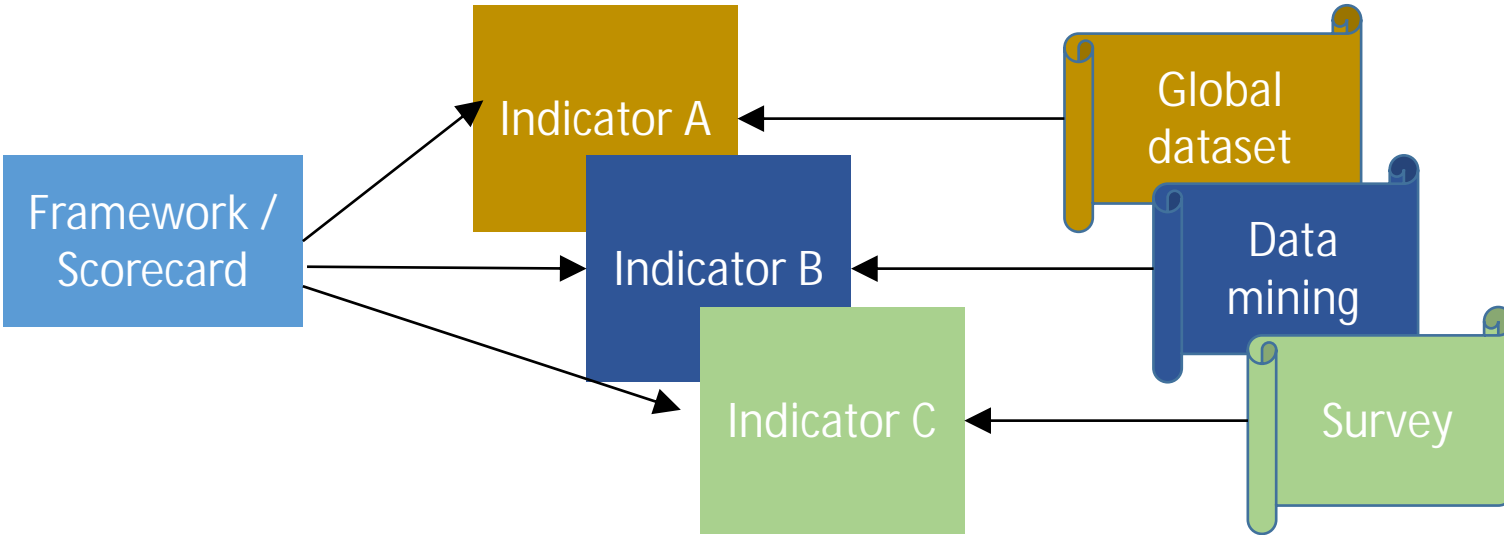
How to transform the national AIS?

- ✓ Improving enabling environment:
 - *evidence-based policies (assessment)*
 - *governance*
 - *infrastructure*
 - *financial mechanisms*
- ✓ Enhancing capacities of the AIS actors
- ✓ Experiment and learn



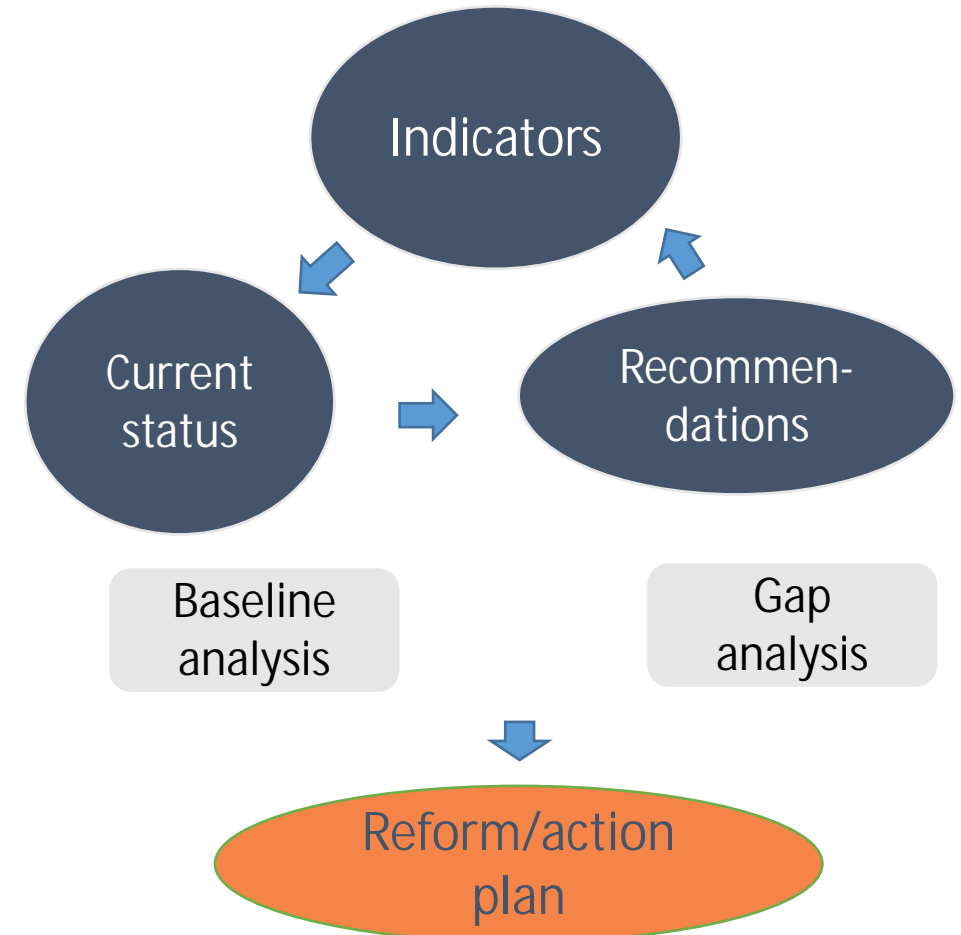


Where to get the data?



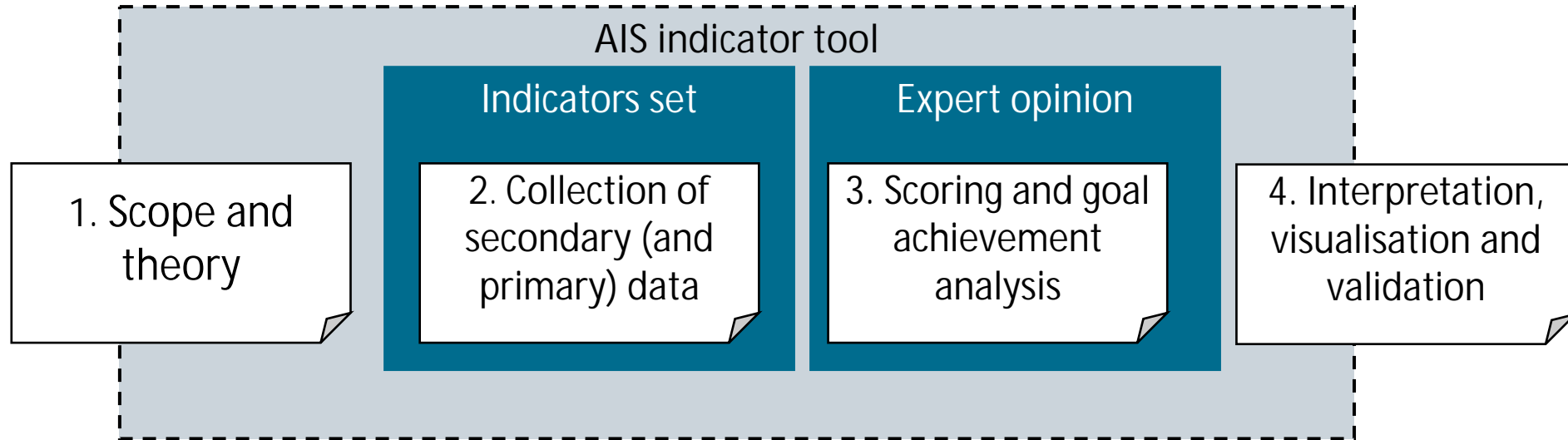
- Systematic approach
- Valid and reliable measurement
- Sound data sources

AIS indicator framework





Methodology



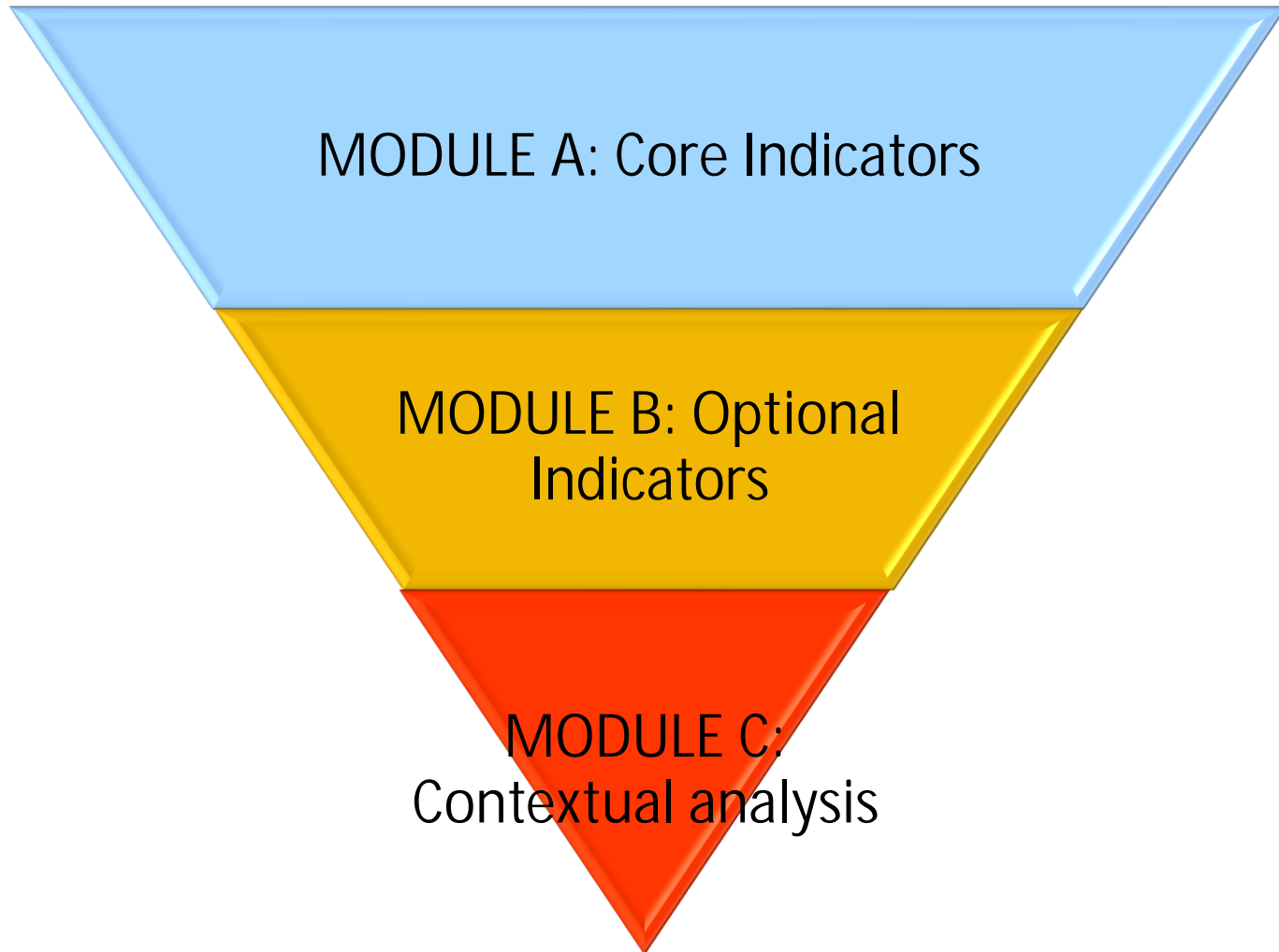
- Additional indicators to secure a systems perspective
- Further analysis to link AIS properties with outcomes



Challenging to realise an “all-purpose” tool for AIS analysis



Indicators landscape and approach



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**ASSESSMENT METRICS FOR
AGRICULTURAL INNOVATION SYSTEMS (AIS)
AND EXTENSION AND ADVISORY SERVICES (EAS)**

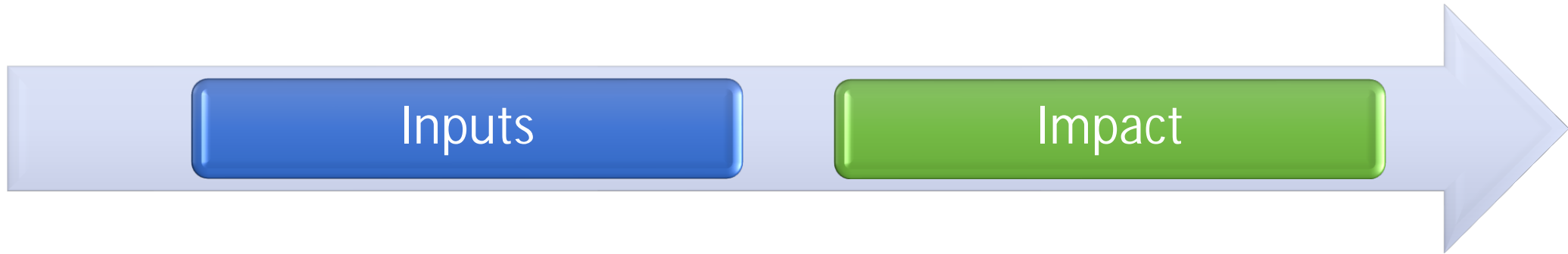
TECHNICAL WORKSHOP REPORT
18-20 November 2019
FAO, Rome



<https://www.fao.org/3/cb7913en/cb7913en.pdf>



AIS indicator framework



Properties		
25 indicators		
Enabling factors - Investment - Policy - Business	System interactions - Communication - Collaboration - Incentives	Provision intensity - research, - Extension - VET

Performance		
11 indicators		
Knowledge outcomes - patents - graduates etc.	Adoption outcomes - sust. standards - ICT solutions, - Business start-ups	Development outcomes SDG targets



Module B- National data on AIS properties – *provision intensity*

Three domains jointly identified by a group of policymakers, department officials and researchers

DOMAINS		INDICATORS	
P R O P E R T I E S	1 Innovative entrepreneurship	1.1.	Number of entrepreneurs supported
		1.2.	Number of project, program in agricultural innovation / agricultural entrepreneurship (ASPHF)
		1.3.	Amount of funding dedicated to innovative agricultural entrepreneurship (ASPHF)
		1.4.	Number of decrees - laws - orders - strategies - policies related to support for innovative agricultural entrepreneurship
		1.5.	Number of innovative entrepreneurship incentive competitions
	2 Multi-actor grassroot innovation	2.1.	Number of initiatives (projects, programs, etc.) involving at least 2 organizations of a different nature to develop an innovation / solve a problem in the agro-sylvo-pastoral sector
		2.2.	Number of partnership agreements signed between research structures and private structures / POs / civil society associations specific to agricultural innovation
		2.3.	Number of incentives for multi-actor collaboration (B to B meetings, fairs, etc.) in agricultural innovation
		2.4.	Amount of funding dedicated to multi-actor innovation projects on agricultural innovation
	3 Transfer and adaptation of new technologies	3.1	Number of new improved seed varieties (agricultural-animal-forestry) "imported" and tested
		3.2	Number of applications / digital platform in general
		3.3	Number of agricultural agents / advisers supporting technology transfer / dissemination
3.4		Amount of public and private funding dedicated to technology transfer / diffusion	

Module C- Contextual analysis of processes in the AIS

Six processes jointly identified by a group of policymakers, department officials, and researchers

		Topics	Indicators
P R O C E S S	1	Knowledge creation	Number of R&D projects; number of patents; amount of R&D funding; number of scientific publications; number of POs / umbrella organizations involved in knowledge development through research and development; Amount of private sector investments in applied research
	2	Dissemination of knowledge in networks	Number of workshops, seminars and conferences dedicated to a specific technology theme / specific area of innovation; number of active "innovation networks"; number of innovation platforms in operation; number of meeting events with innovators / presentation of new technologies (fairs, forums, etc.)
			Amount of private and public sector investments in agricultural advice
			Global number of TV-radio-newspaper programs specializing in agricultural innovations
	3	Research orientation (nature and intensity of the orientations research receives)	Number of specific objectives related to agricultural research announced by the government; number of specific objectives related to agricultural research announced by civil society
			Number of national calls for projects on agricultural innovation
		Number of innovative endogenous practices studied by research	
4	Market formation	Total number of niche markets that have been introduced; number of specific tax regimes reserved for new technologies; number of new environmental standards; number of training / information workshops on intellectual property rights; number of periodic events such as SIAO, FESPACO...;	
5	Resource mobilization	Share of the FONRID budget in the MESRSI budget; number of innovative agricultural projects financed by the private sector; share of the R&D investment budget in GDP	
6	Lobbying for / against innovations	Total number of interest groups in the fields of environment, health, energy, climate; total number of debates in the media	



Take home messages

- Indicator frameworks are useful for governments & agri-food stakeholders to advance on innovations to increase the transparency and help evidence-based policy and investment.
- Indicators reduce the risks in governance and performance of AIS and Extension and Advisory System (EAS).
- Harmonised frameworks describing the complexity of actors and addressing the new political economy models are pertinent to better guide policy and investment processes. Still, it is an approximation of AIS properties and performance rather than an exact measurement.
- Country ownership, and hence, country relevance of data, are crucial: engage government at early stage.
- A harmonised AIS indicator framework can be achieved only through cooperation and partnerships with international actors but also regional organizations and national stakeholders.
- The link between enabling factors for innovation, AIS interactions, innovation provision intensity and knowledge, adoption and development outcomes is not a linear pathway from inputs to impact, but involves feedbacks, spill-overs, unintended consequences and other non-linear relations.
- A multi-country multi-period database on AIS will allow more formal analysis of these relations



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Indicator framework for national extension and advisory service systems
Metrics for performance and outcome measurement

The extension and advisory service systems yardstick (EAS-Y)
A scoring tool to generate evidence on performance and outcomes

Comprehensive assessment of national extension and advisory service systems
An operational guide

AGRICULTURAL EXTENSION IN TRANSITION WORLDWIDE
POLICIES AND STRATEGIES FOR REFORM

New directions for inclusive Pluralistic Service Systems
Report of FAO Expert Consultation

Extension and advisory services: at the frontline of the response to COVID-19 to ensure food security

INTRODUCTION
The global impact of the COVID-19 pandemic is expanding fast. Governments around the globe are confronted with multiple challenges related to minimizing the devastating health impact and protecting human lives, and ensuring sufficient food supplies and the functioning of services to those most in need. At the same time, with the economic consequences of COVID-19 which is expected to push an additional 540 million people below the poverty line, between present disruptions and future threats to the food supply chain, the COVID-19 outbreak has generated extreme vulnerability in the agriculture sector. It is, therefore, crucial to mobilize all available institutional, institutional and capabilities from both public and private sectors and civil society to ensure appropriate and timely response.

AGRICULTURAL EXTENSION AND ADVISORY SERVICES (EAS) systems play an indispensable role at the frontline of the response to the pandemic in rural areas. However, to adapt to the emerging context within the government regulations, EAS providers need to rapidly change their way of operating.

KEY MESSAGES

- EAS can make a critical contribution to minimizing the impact of COVID-19 in the following main action areas:
 - Raising awareness about COVID-19 in rural areas, this will help reduce the spread of the pandemic, while ensuring that adequate support is given to rural producers in terms of both production and compliance with new rules in the field.
 - Assessing the field situation and advising for urgent solutions to farmers' needs as trusted partners of producers and rural communities. EAS are uniquely positioned to assess the field situation, provide tailored services, and keep governments informed, thus allowing rapid and adequate decision-making in ensuring health and food supply.
 - Ensuring continuous support to rural producers in situations of physical distancing. EAS assistance is also more critical than before in supporting rural producers, their and women, ability and youth, to overcome the new and different challenges. EAS can provide tailored support and connect people in ensuring safe access to inputs, loans, transport and finances that are critical to ensure government food production during COVID-19 in the field. To that end, the EAS providers are increasingly being challenged.

The State of Food and Agriculture
2014

Innovation in family farming

EVOLUTION OF COUNTRY-SPECIFIC INVESTMENT REQUIREMENTS OF AGRICULTURAL AND RURAL EXTENSION AND ADVISORY SERVICES

Thank you for your attention!

<http://www.fao.org/nr/research-extension-systems/en/>